



**USAID**  
FROM THE AMERICAN PEOPLE



**WSUP**  
Water & Sanitation  
for the Urban Poor

# Sanitation Service Delivery Program Annual Report

FY18 – October 2017 to September 2018



Submitted to USAID West Africa Regional Office, Accra, Ghana  
under Cooperative Agreement No. AID-624-A-14-00005

Population Services International  
1120 19<sup>th</sup> Street, NW, Suite 600  
Washington, DC 20036

Submitted: May 22, 2019

## Table of Contents

<b>TABLE OF CONTENTS .....</b>	<b>2</b>
<b>LIST OF ACRONYMS.....</b>	<b>3</b>
<b>IMPLEMENTATION ACTIVITIES .....</b>	<b>6</b>
SSD - BENIN.....	7
1. <i>Service Delivery Models</i> .....	7
2. <i>Financing Mechanisms</i> .....	21
3. <i>Stakeholder Engagement and Regional Learning</i> .....	24
SSD - CÔTE D'IVOIRE.....	26
1. <i>Service Delivery Models</i> .....	26
2. <i>Financing Mechanisms</i> .....	36
3. <i>Stakeholder Engagement and Regional Learning</i> .....	36
SSD - GHANA .....	38
1. <i>Service Delivery Models</i> .....	39
2. <i>Financing Mechanisms</i> .....	41
<b>MONITORING, EVALUATION AND LEARNING .....</b>	<b>42</b>
<b>FOCUS ON GENDER AND VULNERABLE POPULATIONS.....</b>	<b>43</b>
<b>ENVIRONMENTAL CONSIDERATIONS AND MITIGATION.....</b>	<b>44</b>
<b>LESSONS LEARNED .....</b>	<b>45</b>

## List of Acronyms

ABMS	Association Béninoise pour le Marketing Social (Benin)
BMGF	Bill & Melinda Gates Foundation
CDI	Côte d'Ivoire
CSC	Community Sanitation Consultants
CSO	Civil Society Organization
DGA	National Direction of Sanitation (Benin)
DHIS2	District Health Information System 2
DNSP	National Direction of Public Health (Benin)
EHSD	Environmental Health and Sanitation Department (Ghana)
EHO	Environmental Health Officers (Ghana)
EMMP	Environmental Management and Monitoring Plan
FSM	Fecal Sludge Management
GAMA	Greater Accra Municipal Authority
GWMA	Ga West Municipal Authority (Ghana)
IPA	Innovations for Poverty Action
JSO	J. Stanley-Owusu Group
KMA	Kumasi Metropolitan Authority (Ghana)
ME&L	Monitoring, Evaluation and Learning
MFI	Microfinance Institution
MMT	Market Monitoring Tools
MoU	Memorandum of Understanding
ONAD	National Office of Sanitation and Drainage (Côte d'Ivoire)
ONAS	National Sanitation Office (Senegal)
PEBCo	Programme d'Epargne Crédit à Base Communautaire
PEV	Plan Epargne Vidange (Desludging Savings Plan),
PLB	Public Latrine Blocks
PSI	Population Services International
ROI	Return on Investment
SD	Samalex Digester (Ghana)
SDM	Service Delivery Model
SME	Small or Medium-Sized Enterprises
SSD	Sanitation Service Delivery Program
TSA	Toilet Sales Agent (Ghana)
UDDT	Urine Diversion Dry Toilet
USAID	United States Agency for International Development
USD	U.S. dollars
USPAB	Union of Professional Entities for Sanitation (Benin)
VTO	Vacuum Truck Operator
VIP	Ventilated Improved Pit Latrines
WASH	Water, Sanitation and Hygiene
WRP	Whitten & Roy Partnership
WSUP	Water & Sanitation for the Urban Poor

## INTRODUCTION

### Background

The Sanitation Service Delivery Program (SSD) is a \$15.8 million USAID/West Africa Regional urban sanitation initiative that operates in Benin, Côte d'Ivoire and Ghana. The five-year program, launched in October 2014, is implemented by Population Services International (PSI), in collaboration with PATH and Water & Sanitation for the Urban Poor (WSUP).

### Vision

The goal of the project is to influence the region's sanitation sector to create a more effective, efficient and inclusive sanitation market for the urban poor in Benin, Côte d'Ivoire and Ghana. The project works toward achieving this goal by developing and testing scalable, market-based models that directly contribute to improving the following outcomes:

- Increased access to improved sanitation;
- Increased safe containment, transport and disposal of fecal waste; and
- Regional learning to inform market-based approach sanitation programs throughout West Africa.

The SSD program serves as a market catalyst to identify and address conditions that prohibit and facilitate the growth of local markets for sanitation. The program puts the customer (landlords, tenants and household) at the center of strategy and action, with donor funding used as a catalytic investment to develop a thriving marketplace, rather than having to depend on subsidized services that are costly and stymie the market instead of growing it. This results in customers having more desirable, affordable sanitation products and services that allow them to move up the sanitation ladder toward safely managed sanitation.

Together, USAID and its partners PSI, PATH and WSUP ("the team") envision a thriving sanitation marketplace with increased capacity to deliver products and services to low-income consumers in a sustainable manner. In the process, SSD is learning and sharing findings, models and tools regionally that facilitate rapid expansion of successful approaches and position the project as a regional leader in this sector.

### Project Overview

#### *Years I and II*

The SSD Project began with a landscape analysis of the urban sanitation market systems in the three project countries. The aim of the analysis was to identify the causes of market failures, and to identify areas for intervention that would deliver the greatest impact.

In Year 1, the team conducted a scan of existing sanitation products and services, visited markets and conducted interviews with producers, sales staff and consumers. By doing this, SSD gained understanding of market actors' roles, expectations, incentives, behaviors and financing options, as well as bottlenecks in the supply chain.

Key market constraints identified in all three project countries included:

- Sanitation products perceived as expensive by low-income consumers.
- Lack of local manufacturing and installation capacity.
- Lack of affordable options for fecal sludge collection/storage.
- Mistrust between consumers and service providers and lack of standards to influence performance.

- Low capacity of vacuum truck operators (VTOs) to completely empty tanks.
- Lack of finances for new VTO equipment.
- VTOs not earning sufficient margins.

Guided by the landscape analysis findings in Year 2, the team developed a set of interventions to address the key market failures and create a more efficient and inclusive sanitation market system for the urban poor. Using techniques from lean start-up and human-centered design, SSD prototyped the following product and service delivery improvements:

- Prefabricated septic tanks in Côte d'Ivoire
- Improved pit latrines in Benin
- Round concrete tanks and biodigesters in Ghana
- Landlord finance models in Côte d'Ivoire and Benin
- Interactive call centers to help optimize the work of VTOs in Côte d'Ivoire and Benin

In addition to these specific interventions, the SSD Team also helped develop finance mechanisms to bolster entrepreneurs' abilities to build and sell toilets, innovated sanitation technologies and services, and influenced policy and practice at scale through actionable learning.

### *Year III*

In Year 3, the bulk of SSD's work in Côte d'Ivoire and Benin involved live prototyping of market-based sanitation service delivery models that were developed during the first two years of the project. Country teams worked with private-sector stakeholders, such as concrete manufacturers and VTOs, to develop strategies to scale-up the products and service models that were successfully prototyped. This included offset double pit latrines fitted with SaTo pans in Benin and soak pits and toilets in Côte d'Ivoire.

In Ghana, the team worked on accelerating the pace of toilet sales by training sales agents and artisans and conducting community marketing events. In Kumasi, the Clean Team, with support from SSD, tested the Mobile Money model to reduce the cost of operations and increase profitability.

Country teams worked on demand creation strategies, conducted household promotional visits and planned public awareness campaigns. Product promotion was conducted by project-affiliated sales agents with the support of locally elected officials and community leaders. The teams in both Côte d'Ivoire and Benin established call centers to support desludging services, improve service quality and reduce the cost of mechanized emptying of septic tanks.

Throughout Year 3, the team established partnerships with micro-entrepreneurs—such as hardware shops, plumbers, masons and concrete ring manufacturers—who are key actors and necessary for the scale-up of project activities.



## IMPLEMENTATION ACTIVITIES

The fourth and most critical year of the SSD project life cycle involved the actual scale-up of project activities, especially with regard to promoting SSD-supported sanitation products and services.

The sanitation products, refined during Year 3 as part of country-specific service delivery models, were standardized and further improved in terms of functionality. To increase visibility and improve the aesthetic appeal of the supported products and services, the Côte d'Ivoire team developed the brand "SaniPlus" under which these products and services are now marketed. The Benin team made strong progress with the sales of "MIMIN" products and made sure to collect customer feedback and modify the product design accordingly.

SSD activities in Ghana were reduced from February through July 2018 to allow PSI to conduct a risk assessment; the outcomes were positive and normal activities resumed on August 1, 2018.

Country teams intensified household prospecting activities and continued recruiting and training additional promotional agents and sales supervisors to support the product promotion campaigns, which resulted in steady sales increases. In Year 4, there were 2,667 latrine products sold (198 in Côte d'Ivoire, 2,302 in Benin and 166 in Ghana), providing 6,164 people with access to basic sanitation, and 6,885 people with access to limited sanitation.

SSD continued supporting the development of the market supply chain by increasing the number of partner micro-enterprises and providing continuous training and retraining to ensure there are enough concrete ring manufacturers and builders available at any time to satisfy demands when and where needed. During Year 4, SSD supported 30 new microenterprises to adopt new technologies and management skills.

With regard to marketing efforts, SSD actively worked with the media and developed new media communication materials, radio spots and print advertising.

SSD also continued its active advocacy with local government authorities, which led to various municipalities adopting bylaws that provide for stricter enforcement of sanitation regulations. As a result of the prospecting and marketing campaign, as well as the efforts to build up the VTO fleets in Benin and Côte d'Ivoire, a total of 734 emptying services were organized through the call centers (121 in Benin and 613 in Côte d'Ivoire) and 5,080,000 liters of fecal sludge were safely removed (789,000 in Benin and 4,291,000 in Côte d'Ivoire).

One of the biggest successes during Year 4 was the operationalization of the Sanitation Financing mechanism. The country teams monitored the disbursement of micro loans to households and businesses and analyzed feedback received. 982 consumers took out loans to purchase latrine products, in addition to five sanitation enterprises.

The customer satisfaction analysis indicates an increase in overall customer satisfaction from the sanitation product providers. In all three countries, customer satisfaction after the installation of latrine products was at least 90%.

Throughout Year 4, SSD maintained a productive relationship with government officials and community leaders, which resulted in government staff actively helping SSD conduct

community-based activities, such as identifying houses with overflowing tanks and conducting public awareness events for behavior change.

Following is a country-by-country review of activities undertaken during Year 4.

## **SSD - BENIN**

Over the past 12 months, the SSD Benin Team achieved the following:

- 2,302 toilets sold by project-affiliated enterprises.
- 5,451 people gained access to basic sanitation, and 1,009 people gained access to limited sanitation.
- 5,451 people gained access to safely managed sanitation, and 1,009 people gained access to safely managed fecal sludge.
- 46% of customers who bought WC MIMIN fall in the lowest two poverty quintiles.
- Facilitated disbursement of 920 sanitation loans for households and two loans for sanitation micro-entrepreneurs through a partnership with PEBCo.
- Reinforced the capacity of key market actors to deliver solutions to sanitation issues at scale in Abomey-Calavi and Porto-Novo. Concrete ring manufacturers can now produce and maintain a stock of the necessary prefabricated components. They can also directly deliver all of the components required to build a latrine to the consumer's home and oversee installation by project-trained masons.
- Partner micro-enterprises now offer WC MIMIN for as low as \$110 US. The installation usually takes three days.
- A household survey showed a 92% customer satisfaction rate.
- Successfully engaged local governments through advocacy to support sanitation scale up. Both the municipalities of Abomey-Calavi and Porto-Novo donated an equivalent of \$5,500 U.S. dollars (USD) to help poor households buy WC MIMIN toilets.
- SSD successfully incorporated more than half of the VTO operators in Cotonou (35 out of 63) to join the project truck fleet.
- In partnership with a local microfinance institution (MFI), SSD developed a Desludging Savings Plan for homeowners. The consumers can now contribute periodically to have enough money saved to pay for the emptying service at the appropriate time.
- As a result of SSD's prospecting and marketing campaign, 121 emptying services and 789,000 liters of fecal sludge were safely removed by the end of September.

## **1. Service Delivery Models**

### **1.1. Sanitation Model**

Benin's sanitation service delivery model focuses on manufacturing and commercializing concrete rings and promoting the off-set double-pit, pour-flush latrine (branded as the "WC MIMIN" toilet)<sup>1</sup> equipped with a SaTo pan user interface, which is a self-closing device to reduce odors and insects in the cabin. The value add of this toilet, when compared to single drop-pit toilets, is the elimination of flies and odors, the comfort of a seated user interface, and the aspirational pour-flush technology. WC MIMIN also ensures the availability of qualified local labor and supply chain providers within proximity, thereby making the product easily available while limiting transport costs.

---

<sup>1</sup> In May 2017, SSD Benin chose the name "MIMIN" as a brand name for this latrine product.

The profit margin on the sale of concrete rings, toilet seats, toilet accessories<sup>2</sup> and toilet construction is appealing to micro-enterprises (builders and concrete ring manufacturers) who wish to diversify and expand their businesses.

The target population includes owners and tenants of single-family homes and multi-family compounds. Some customers are currently openly defecating, others are using traditional unimproved latrines and others are looking to add additional toilets to reduce the number of people using each toilet in their home.

#### **1.1.1. Product Standardization**

During Year 4, the SSD Benin project team designed and tested a half-moon concrete ring mold intended to reduce the damage/breaking of concrete rings that occasionally occurs during transport and handling. The half-moon mold was tested at 10 households, and evaluation of the test results is currently underway.



*The manufacturing of concrete rings by a project partner micro-entrepreneur*

To avoid having the wastewater stagnate prior to being flushed into the pit, the SSD technical team also developed a branched piping model for direct connection. This design has been shown to reduce wastewater stagnation, thus reducing odors entering the cabin and preventing collecting standing water that can attract mosquitos.



*Left: Branched piping element*



*Right: SaTo pan installed on a toilet seat*

Similarly, after receiving feedback from male customers complaining that their genitals were touching the wall of the SaTo pan, SSD introduced a new toilet seat design to address this issue. Customers can now choose between the new toilet seat design, which is offered for 12,000 FCFA, or the old design option, which costs 10,000 FCFA.

---

<sup>2</sup> Toiler accessories include PVC pipes and joints, concrete slabs, and tiles.



### Design of a Hand Washing Station and a Rainwater Harvesting Tank

Taking into consideration the importance of hand washing for preventing fecal-oral contamination, as well as the low purchasing power of the target populations, the SSD technical team designed an innovative hand-washing station (costing 5,000 FCFA), which is attached to the MIMIN toilet superstructure. The cost of the hand washing station will be included in the unit price for the toilet, which will make it mandatory for households that choose the WC MIMIN model.



*Hand washing station installed on the side of a latrine superstructure*

The model also comes with an optional rainwater harvesting tank, with an integrated filter, for collecting and storing rainwater. The tank costs around 6,000 FCFA (see estimates below).

**Table 1: Construction costs for the rainwater harvesting tank**

N°	Item	Unit	Quantity	Price per Unit	Total
1	Metal sheet – 0.17mm	U	1	2,700	2,700
2	Galvanized iron wire	Roll	0.2	2,000	400
3	Galvanized nails – 8mm	kg	0.5	1,200	600
4	Manpower	FF	1	2,500	2,500
					<b>6,200</b>

Additionally, the team drafted the WC MIMIN Toilet Maintenance and Service Guidelines.

### Experimenting with Compressed Earth Blocks

During Year 4, SSD Benin experimented with a prototyped superstructure made of Compressed Earth Blocks (CEBs). One of the advantages of CEBs is that sand extracted during the digging of the pits can be used to produce the blocks for the construction of the superstructure. The results of the testing indicated that using CEBs can reduce the cost of the prototyped structure by 20%.

### Testing the Digni-loo

SSD Benin tested the acceptability and technical feasibility of the Digni-loo product with 10 households living in informal areas (not yet parceled by the government). These households resided in the municipality of Abomey-Calavi and were willing to end the practice of open defecation. The only condition for the households to participate in the trial was their commitment to build a superstructure immediately after the installation of the Digni-loo, and to provide feedback to SSD engineers regarding the operation of the prototype.

The Digni-loo is a low-cost, removable plastic toilet consisting of three elements developed using USAID funds by the WASH for Health program in Ghana:

- 1) A plastic slab (that serves as a pit cover) equipped with a user interface.
- 2) A long plastic cylinder located underneath the slab that serves as the wall of the pit.
- 3) A PVC pipe that provides ventilation and removes odors.

The wholesale cost of a Digni-loo toilet is \$75 USD. With the added costs for transportation, customs clearance and profit margin for the suppliers, it could be sold to consumers for an estimated \$125 USD.

The results obtained at the end of the trial showed that users were satisfied with the Digni-loo product because they found it to be odorless, insect-free and easy to use. While SSD does not have plans to commercialize the Digni-loo in FY18, the trial results suggest there may be a market opportunity for the product.

### 1.1.2. Supply Chain Implementation

The SSD team in Benin continued helping micro-entrepreneurs in building their capacity to become the main points of contact for WC MIMIN customers. The ultimate goal is for each household to have a supplier of materials nearby who can install the WC MIMIN in three days, and respects established norms and quality standards. For this purpose, additional micro-entrepreneurs (masons and concrete ring manufacturers) were recruited and trained in manufacturing the components and constructing the WC MIMIN – thus, bringing the number of active partner micro-entrepreneurs to 35 masons and 22 concrete ring manufacturers.



*Training newly recruited micro-entrepreneurs*

Throughout Year 4, SSD Benin also gave refresher trainings to partner micro-entrepreneurs and provided them with molds for manufacturing the prefabricated concrete components, as well as input materials to construct flat, concrete platforms to be used while casting prefabricated toilet components. Having a flat, clean platform is important for ensuring that the toilet components maintain their correct shape after the molds are removed. All partner micro-entrepreneurs are now able to deliver to customers prefabricated components that are of the same size and comply with recommended quality standards.

### Geographic Expansion

With an effective service delivery model and demand creation strategy now established, SSD Benin began scaling up project activities to 10 new municipalities. The newly added areas—which are in proximity to Abomey-Calavi and Porto-Novo and within a 100-km radius from Cotonou—include the municipalities of Allada, Bohicon, Abomey, Comè, Houéyogbé, Adjara, Akpro-Missérété, Avrankou de Sakété and Ifangni.



***Partner micro-entrepreneurs expanding their operations into newly added project areas***

Some micro-entrepreneurs from the initial project areas also began expanding their operations to the newly added municipalities in order to attract new customers, demonstrating that SSD has succeeded in creating a profitable business opportunity for local entrepreneurs. Entrepreneur Paul Kpadonou opened two new business locations in the municipality of Allada, in addition to his initial one in Abomey-Calavi. Entrepreneur Ismaël Amhou opened an annex of his business in the municipalities of Akpro-Missérété and Adjarra. The operation of these newly opened annexes allowed the project to launch WC MIMIN-related activities in Allada, Adjarra and Akpro-Missérété.

In Adjarra, SSD Benin trained two additional concrete ring manufacturers, which brought the number of trained materials suppliers in the municipality to three, and four masons.

***Table 2: Number of builders and concrete ring manufacturers trained and engaged in the construction of WC MIMIN toilets during Year 4***

Item	Goal	Achieved
# of concrete ring manufacturers trained	25	22
# of masons trained	100	35
<b>Total</b>	<b>125</b>	<b>57</b>

### **Workshops with Sanitation Market Actors**

With the aim of overcoming challenges related to project scale-up, SSD Benin organized three workshops that brought together all market players, sales agents (in Benin known as Community Sanitation Consultants, or CSCs), CSC supervisors, representatives from local municipalities, and delegates from the Ministry of Health. At the workshops, each market actor discussed the challenges and obstacles they faced, which, among other things, included quality assurance of prefabricated components, the practical implementation of the sales strategy in the field, the relationship between CSCs and micro-entrepreneurs, and uncompleted construction. Afterward, the delegates underwent a brainstorming session for devising appropriate solutions and gave the following recommendations:

- Involve the micro-entrepreneur directly in the sales process and sales promotion.
- Give refresher trainings to concrete ring manufacturers and masons to strengthen the quality of prefabricated components and toilet installation.
- The SSD technical team should continue frequent monitoring of field activities.
- CSCs can generate demand for micro-entrepreneurs currently operating in low-demand areas in new geographies with a higher demand for WC MIMIN products.
- Routinely involve health officers in project community activities.

### SaTo pan

SSD developed a partnership with LIXIL—the producer of SaTo pan—and through them connected with their partner, Innoson Technical & Industrial Company in Nigeria, which will deliver future SaTo pan procurements to Cotonou within three weeks of payment.

SSD will partner with Innoson to ensure equipment is available for the construction of Sato pan toilets, but SSD hopes to identify a local partner to provide Sato pans once the project ends.

To ensure continued availability of the SaTo pan product in Benin, SSD established a committee that will search for an importer who would be willing to import SaTo pans in the future.

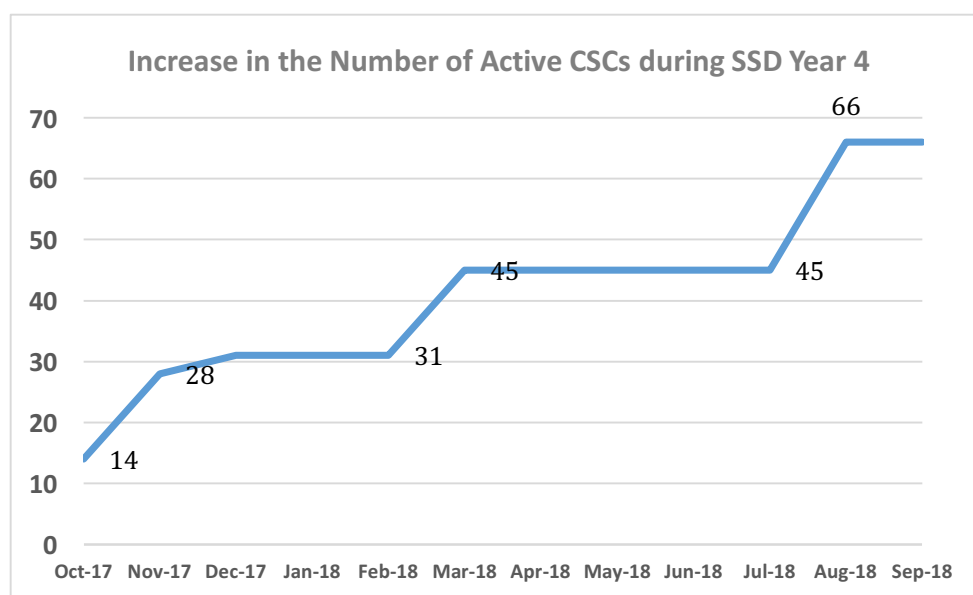
### 1.1.3. Demand Creation Activities

#### Recruitment, Training and Supervision of CSCs

With regard to the need to extend SSD project activities to the newly added target areas, SSD Benin recruited and trained a total of 82 sales agents, or CSCs.

43 of the CSCs received training from the Whitten & Roy Partnership (WRP), which was contracted by SSD, whereas the remaining 39 CSCs will be trained by SSD staff in Benin.

Of the agents that were recruited and trained, 66 are active, 5 have dropped out and 11 are in the process of being redeployed to strengthen the capacity of the teams in the newly added municipalities in Allada, Adjara and Akpro-Missérété.



In order to be prepared in case of unexpected resignations or possible contract breaches, the team has recruited an additional 14 CSCs that are currently on the waiting list to fill in if a shortage arises.

Also, to help cover the newly added areas, SSD will redeploy the best-performing CSCs from Porto-Novo and Abomey-Calavi to the other municipalities, except for Sakété, Ifangni, Comè,

and Houéyogbé, where the local languages are different and require the recruitment of native speakers from these municipalities.

### **Recruitment, Training and Deployment of CSC Supervisors**

To address the need to manage the growing number of CSCs and improve supervision quality, SSD Benin recruited 10 new supervisors, five of whom were promoted among well-performing CSCs with demonstrated leadership abilities. These newly recruited supervisors received training by WRP, and once deployed, the overall number of supervisors rose to 13, with a ratio of six CSCs per supervisor, as opposed to one per 13, as was the case before.

### **Sales Manager**

The supervisory mechanism for CSCs was further strengthened by the recruitment of a Sales Manager who oversees their work and helps build their capacity.

The Sales Manager also monitors micro-entrepreneurs, helps them develop their businesses, and conducts supervisory site visits to understand their challenges and propose appropriate solutions. The manager also identifies and guides micro-entrepreneurs to new opportunities. For example, the manager encourages micro-entrepreneurs to establish new manufacturing grounds/annexes in order to bring supply closer to demand.

### **Household Prospecting**

With the support of local government officials and community mobilizers, CSCs conducted door-to-door prospecting visits throughout 2018, this time with newly set objectives that increased the target number of household visits per month from 120 to 216.



*CSCs during a regular household prospecting session*

Routine household visits by CSCs are also used as an opportunity to remind homeowners to consider adding a second pit to their latrine.

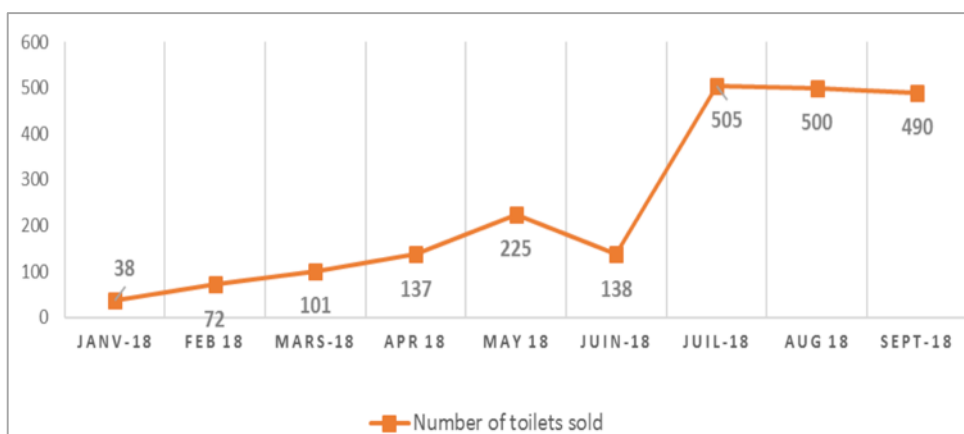
### **Implementing the New Sales Force Motivational Strategy**

According to the old motivational strategy, each CSC earned a fixed monthly amount of 100,000 FCFA, even if they did not achieve any sales. The outputs of the strategy showed that of the 51 CSCs active when the old mechanism was in place, only three, or 5.8%, regularly reached the sales objectives of completing four sales/constructions per month.

From March to June 2018, or three months following the training of CSCs on the context-specific sales strategy, the average monthly output was 150 toilets sold/constructed by all 51 CSCs instead of the target of 204 sales/constructions. Nearly 65% of CSCs were barely making a single sale per month and were considered unproductive.



## Progress on the Number of Toilets Sold per Month during Year 4



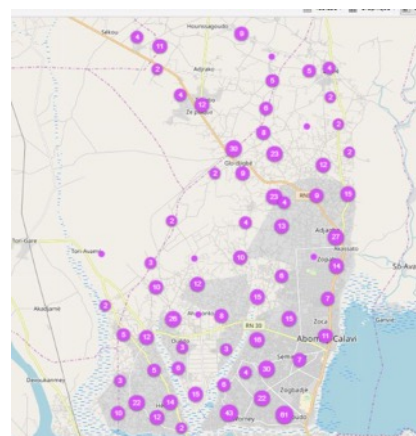
To address this situation, in the beginning of July 2018, SSD Benin developed a new motivation strategy, which provided that a CSC may earn the entire amount of the fixed salary only after making at least two sales per month. They also receive commissions on a sliding scale, with a higher commission for reaching certain benchmarks. For example, for sales between five and 10 toilets, they earn 15,000 FCFA per sale, and for 11 or more sales, they earn 17,000 FCFA per toilet.

From July 2018, when the new motivational strategy came into effect, until September 2018, the average number of completed constructions sold increased to 498 WC MIMIN per month, more than a three-fold increase. This brought the number of toilets sold and built by the end of September 2018 to 2,384.

### Mapping the MIMIN Toilets Constructed in Year 4

To optimize the work of CSCs in the context of the extension of the geographical areas covered by SSD project activities, SSD Benin initiated the process of GIS mapping of toilet locations in each neighborhood. The first level includes the geo-referencing of toilet locations by CSC supervisors when they verify their existence.

Then, external consultants conduct the actual mapping of the data into an electronic database. Mapping constructed toilets gives SSD the opportunity to optimally measure the level of customer satisfaction and also to control the quality standards of toilets. Unannounced supervisory visits organized by the team were shown to be very effective in reinforcing quality control of toilet construction. In Year 5, these types of supervisory visits will be conducted regularly by SSD staff.



**Mapping of constructed toilets**

### Community Engagement via the SSD Mobile Video Unit

To increase the visibility of and familiarity with the MIMIN brand, SSD Benin organized several community engagement events through its mobile video unit. A total of 16 days of engagement activities were conducted during the year, reaching 1,255 potential customers, with 167 promising to purchase a WC MIMIN.



*The SSD mobile video unit in action*

### Broadcasting of Commercials, Press Releases and Radio Programs

SSD door-to-door demand creation activities were accompanied by the production of specialized programs, commercials and press releases that were broadcast on three partner radio stations: Radio Tokpa, Radio Tado FM and Radio Benin Culture. The achieved media output is as follows:

**Table 3: Number of broadcasts achieved by the end of September 2018**

Item	Achieved to FY3	Y4Q1	Y4Q2	Y4Q3	Y4Q4	Total FY4	Achieved to FY4
Radio broadcasts (commercials, programs, etc.)	1,485	4,459	4,827	2,592	4,073	15,951	<b>17,436</b>

To further improve the impact of broadcasting activities, SSD Benin held a meeting that involved members of the SSD team, journalists, focal points from radio stations and radio hosts. The purpose was to encourage radio stations to continue developing and airing sanitation programming to encourage community members to purchase toilets. As a result, radio stations have been using their own resources to translate radio spots from French into local languages. Additionally, they are using their own resources to identify guests to participate in the programming.

#### 1.1.4. Development of Communication Materials

Several communication support tools were also developed to assist the CSCs during prospecting visits. The table below summarizes the types and quantities of communication materials produced for the promotion of the WC MIMIN.

**Table 4: Breakdown of communication materials produced**

Type of material	Number of items
Fliers	19,900
Brochures	3,826
A2 posters	1,144
Vests	129
Stickers promoting toilet maintenance	886
WC MIMIN-10 banners	02

These include fliers and brochures that are being distributed to households during prospecting and community engagement activities. WC MIMIN vests are worn by CSCs in the field, and MIMIN banners are used during public awareness events conducted by the SSD mobile video

unit. Communication materials are also displayed at the WC MIMIN points of sale of each micro-entrepreneur.

SSD is also working with local authorities and community leaders to decorate walls in public locations within the project areas and brand them with SSD-supported messages. The walls were selected because of their strategic positions within the communities, which allows for better exposure to the message. The decorations are expected to be completed during the 1<sup>st</sup> quarter of Year 5.

## **1.2. Fecal Sludge Management Model**

In its current form, the sales model for emptying services is based on promoting the Call Center with the aim of expanding the desludging market, improving service quality and optimizing customer satisfaction. This promotion of the services offered under the brand name "MIMIN", which means "CLEAN" in the local language, is conducted through the use of sales agents as well as via media and non-media communication.

### **1.2.1. Service Standardization**

The Vidange MIMIN sales model, centered around the Call Center, was piloted by SSD during Year 4. The team first tested the model with eight VTO entities before extending it to all partner desludgers.



***Debriefing session after a day of door-to-door prospecting accompanied by members of the sanitation police***

Following the results from the mystery customer<sup>3</sup> price survey of emptying services in Cotonou, the price ranges for desludging, according to the volume of sludge to be extracted, were established as follows:

- 6 m<sup>3</sup> = 35,000 F to 40,000 F
- 12 m<sup>3</sup> = 75,000 F to 80,000 F

However, the most recent feedback received from partner desludgers indicated dissatisfaction regarding the price range for the emptying services, although they previously

---

<sup>3</sup> First, a secret shopper exercise conducted in F4Q2 sought to ascertain the minimum prices service providers would accept to charge consumers. This exercise led to SSD negotiating the official price for removing 6 m<sup>3</sup> of fecal sludge, down from XOF 45,000 to XOF 35,000, a 22% reduction. This is now the price advertised by the Call Center. This included a secret shopper exercise to determine the lowest prices tanker operators would accept to remove 6 m<sup>3</sup> of fecal sludge from a household.

agreed on those prices. Namely, some of the partners prefer that the Call Center communicate fixed prices to homeowners: 40,000 for the 6m<sup>3</sup> and 80,000 for the 12m<sup>3</sup> tanks/pits. The evaluation of the Call Center implementation will be done during the first quarter of Year 5.

#### **Official Launch of Vidange MIMIN**

The official ceremony to launch "Vidange MIMIN" was held on September 13, 2018 at the Azalaï Hôtel de la Plage, in the presence of Mr. Denis da Conceicao Courpotin, Chief of Staff for the office of the President of Benin; Daniel Moore, Director of USAID West Africa; Eric Dovonou, representing the Ministry of Living Environment and Sustainable Development (MCVDD); and Mr. Simon Hounsa, representing the Department of the Littoral. The ceremony was also attended by 134 locally elected representatives (out of a total of 165), including district officials from Cotonou, managers of partner VTOs, the management of the Benin Association for Social Marketing (ABMS), and representatives of other institutions involved in the sanitation sector in Benin.



***Official launch of Vidange MIMIN in Cotonou***

The aim of the ceremony, which mobilized around 300 people, was to popularize "Vidange MIMIN" and inform the public about the benefits of using Vidange MIMIN services as an effective solution to protect the environment and maintain a healthy lifestyle.

During this ceremony, SSD donated safety equipment kits to representatives from the partner VTO entities. The kits consisted of protective vests, boots, breathing masks, gloves and water buckets.



***Distribution of protective equipment kits to partner VTOs by the Regional USAID Director***

### 1.2.2. Supply Chain Implementation

#### Recruitment and Signing of MoUs with the VTOs

Among the 63 members of the Union of Professional Entities for Sanitation (USPAB), 35 providers of emptying services signed a Memorandum of Understanding (MoU) with SSD Benin that outlines the collaboration framework with the project. The project continues to work with the remaining members of USPAB.

SSD is currently involved in recruiting a consultant to train partner desludgers on developing their businesses and drafting financially bankable business plans.

#### Training Desludgers

In line with the forecasts made for Year 4, SSD successfully trained 132 employees (drivers and operators) from partner desludging entities on health and occupational safety during service delivery and on work quality standards. This training was conducted with the strong participation of Cotonou Municipality's technical staff and representatives from the Ministry of Health and Environment.



*Training desludgers*

The truck repair training activity was discontinued at the request of the VTOs, who felt that the training they originally requested was no longer needed. The lack of spare parts for their trucks and ongoing lack of financing to make repairs mean that it would be difficult for the VTOs to use any of their new skills.

#### Recruitment of a Private Call Center Operator

SSD is currently involved in the process of recruiting a private-sector partner to operate the Call Center, thus ensuring the sustainability of Vidange MIMIN.

### 1.2.3. Demand Creation Activities for Desludging Services

#### Training and Supervision of CSCs

Two training sessions on the customer-centered sales approach, based on WRP's RACE method (Result = Attitude + Competence + Effort), were organized for 20 newly recruited CSCs. The training was conducted by SSD Benin staff members (who were previously coached by WRP on training delivery) and focused on equipping the CSCs with an approach that promotes desludging services.



### Household Prospecting for Vidange MIMIN Services

Following the March 2018 training, the CSCs were immediately deployed and regularly supervised by the project team. The promotional visits were conducted with support from the Atlantic Coast Department<sup>4</sup> Directorate for Health and Sanitation, the PSI office at the Municipality of Cotonou, and local community leaders. A total of 1,844 households were prospected, out of which 424 (27%) were identified as having overflowing septic tanks/pits. The homeowners with overflowing pits were encouraged to contact the Call Center and request MIMIN Vidange services.



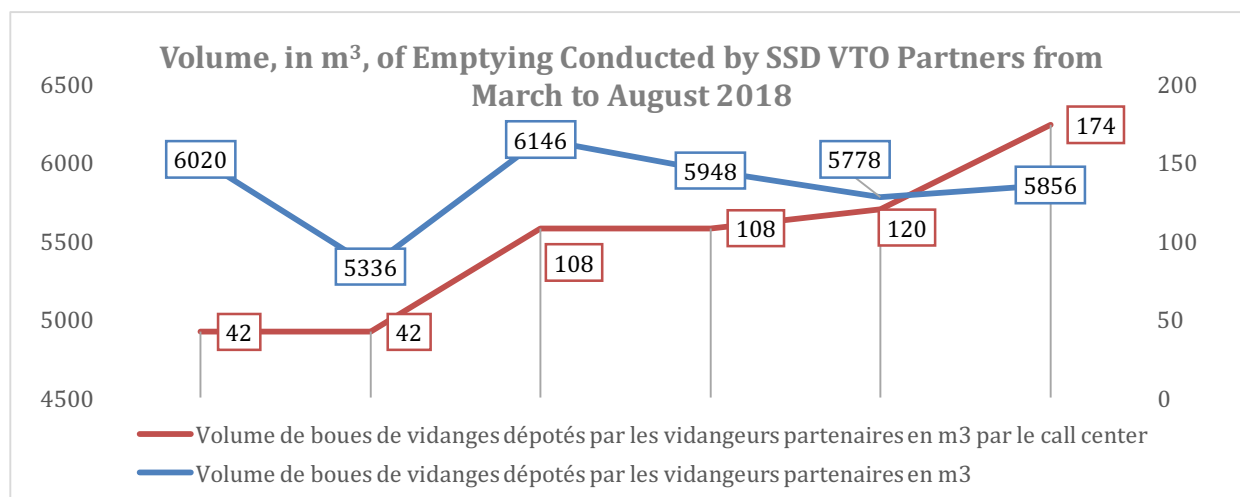
*Prospecting visit for marketing the Vidange MIMIN services*

By the end of September 2018, 387 calls were received by the Call Center for a total of 118 emptying services sold, corresponding to a sales conversion rate of 30%. However, customer surveys have shown that the vast majority of households with overflowing tanks organize desludging without going through the Call Center, and instead directly contact the partner VTOs. Households sometimes directly contact VTOs because local non-governmental organizations (NGOs) provide a service where VTOs provide credit for partial emptying services, and households can pay for the full service over three months. To use this service, households must pay a subscription of 5,000 FCFA to be part of the customer network. In the coming year, SSD plans to set up partnerships with these NGOs to train project VTOs who can help households that are unable to pay cash.

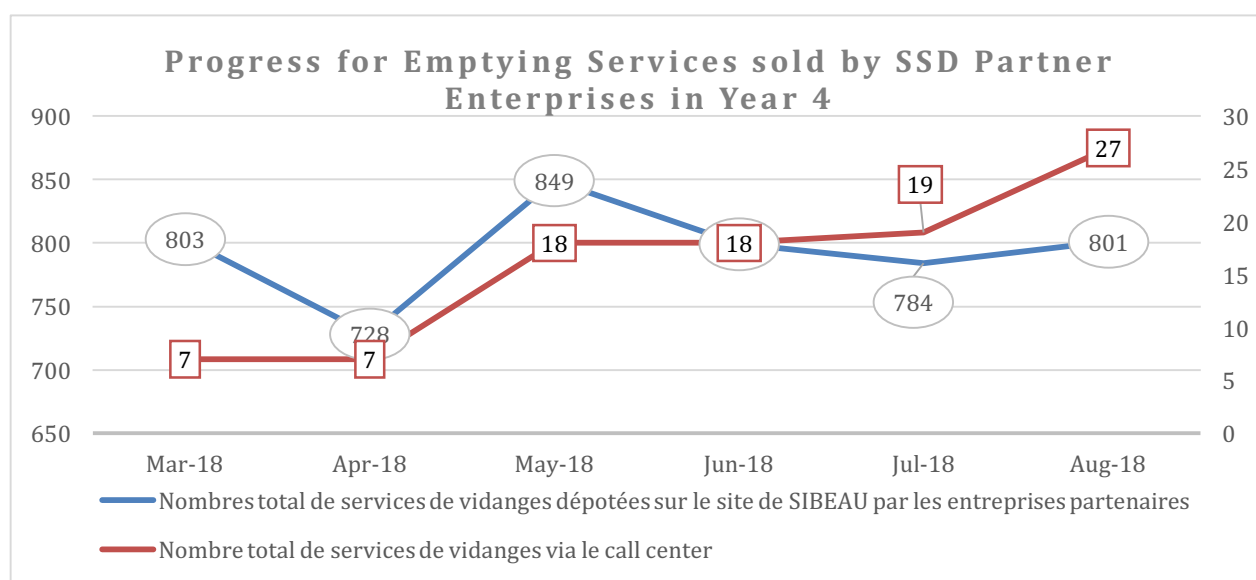
When desludging services organized without coordination from the Call Center are taken into account, results indicate that between March and August 2018, a total of 35,084 m<sup>3</sup> (35,084,000 L) of fecal sludge was extracted, out of which 594,000 liters, or 2%, was coordinated through the Call Center. More data need to be documented about the Call Center's impact on selling SSD services and will be included in future reports.

---

<sup>4</sup> Atlantique, or the Atlantic Coast, is one of 12 departments (regions) in Benin. The department is located in south central Benin along the Atlantic coast.



During the period mentioned, 4,764 desludging services were conducted by partner VTOs, out of which 121 (or 2.5%) were coordinated by the SSD Call Center. This suggests that the greatest value add of the project is in the promotion and sale of this service and the strengthening of service quality, rather than the Call Center itself.



#### 1.2.4. Development of Communication Materials

SSD Benin produced a radio commercial to promote Vidange MIMIN services, and the production of a TV commercial is currently in progress.

The team used billboards to promote the Vidange MIMIN brand, with the biggest one displayed at the largest sports stadium in Benin, the GMK Friendship Stadium, which hosts sport events, fairs, shows, concerts and other activities.

The table below summarizes the types and quantities of communication materials produced for the promotion of Vidange MIMIN.

**Table 5: Breakdown of communication materials produced**

Type of material	Number of items
Fliers	4,500
Brochures	1,000
A2 posters	250
Vests	24
Stickers promoting full desludging services	856
Stickers promoting basic desludging services	292
WC MIMIN banners	2
Document folders	100
T-shirts	86

## 2. Financing Mechanisms

The financing mechanism was developed to assist compound and individual household owners and micro-enterprises in accessing sanitation loans at an interest rate of 1.9% per month, with a flexible 12-month repayment period. To receive the loan, owners need to secure advance savings to prove their capacity to repay the loan. The loans are guaranteed by a \$20,000 USD fund given to PEBCo. The maximum loan amounts available are 150,000 FCFA for household owners and 500,000 FCFA for entrepreneurs.

### Monitoring the Disbursement of Sanitation Loans

The first sanitation loans were disbursed at the end of Q2, following the signing of the MoU with PEBCo and the establishment of the guarantee fund. To support the promotion of the sanitation loan, a reference sheet was designed and distributed to the sales teams to be shared with eligible homeowners during prospecting visits.

Throughout the year, several workshops were organized with representatives from PEBCo-Microfinance and the sales teams to share experiences and resolve bottlenecks.

By the end of September 2018, sanitation loans were disbursed to 920 customers. Out of the consumer loans, 240 (26%) were issued to women. The 90-day risk portfolio rate is 0% and the repayment rate is 99%. The total amount of loans disbursed was reported to be around 100,000,000 FCFA, which, according to the provisions of the agreement signed with PEBCo, has largely exceeded the initial envisioned amount of 33,000,000 FCFA.

The implementation of the finance mechanism directly influenced the increase in sales of WC MIMIN, with 77% of the construction financed by the sanitation loans. These results far exceed the initial forecast of 240 sanitation loans and illustrate the need for strengthening the mechanism by increasing the working capital. In Year 5, SSD will work with PEBCo to increase the funding available for sanitation financing.

### Guarantee Fund Management Committee Workshop

The partnership agreement between PEBCo-Microfinance and SSD provides that before transferring the additional guarantee fund to the former partner, SSD should first conduct an evaluation of the pilot phase. Thus, in July 2018 SSD organized an evaluation workshop to examine the results of the financial mechanism's pilot phase.

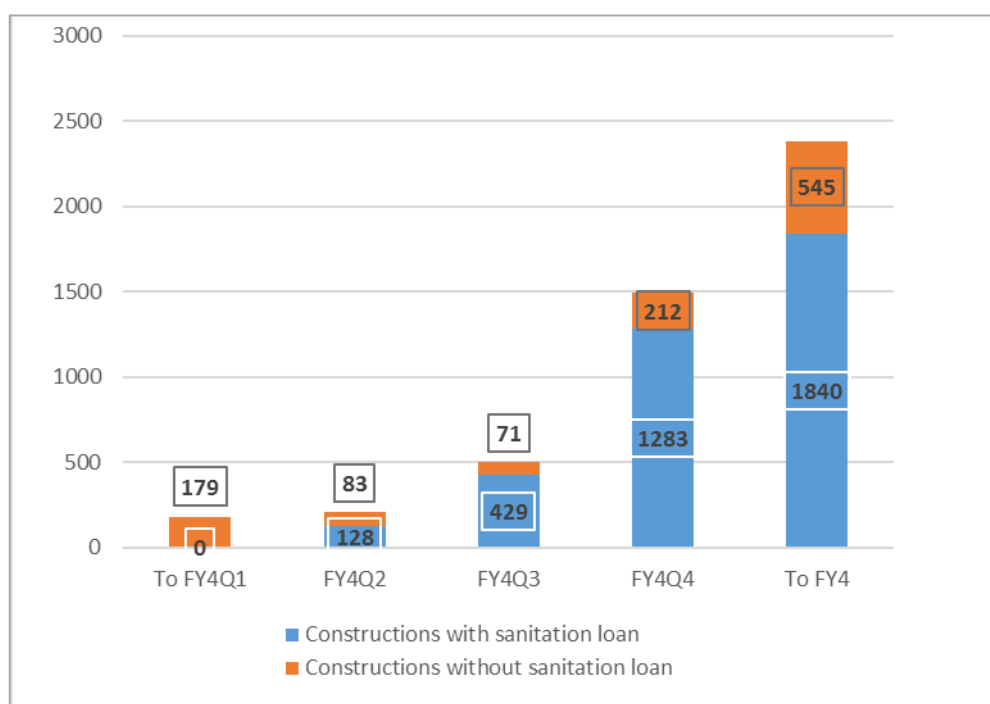


***Members of the guarantee fund management committee***

The workshop took place at the ABMS offices and included representatives from PEBCo, the Professional Association of Decentralized Financial Structures, the Agency for the Supervision of Decentralized Financial Structures, the National Directorate of Public Health and members from SSD Benin. Key findings from the evaluation are as follows:

- Out of the 313 loan applications submitted, 280 were approved.
- The total amount of funds disbursed during the pilot phase was 39,567,350 FCFA.
- The performance indicators showed the repayment rate to be 99.2%, with a risk portfolio of 0%.

#### **Progress on the Number of WC MIMIN Constructed using Sanitation Loans in Year 4**



The pilot phase evaluation report was unanimously approved, and the committee members made the following recommendations:

- Increase the maximum household loan from 150,000 to 175,000 FCFA. This will allow homeowners to construct not only the toilet, but also the superstructure.
- Proceed with the transfer of the additional guarantee fund of \$5,000 USD to PEBCo.
- Continue issuing sanitation loans.
- Explore other finance mechanisms, in addition to the SSD-backed one.



***Workshop on the sanitation loan mechanism  
with government and municipal authorities***

Following this evaluation workshop with members of the guarantee fund, PEBCo also organized workshops with members of the SSD sales force, local community focal points and representatives from the Ministry of Health to share the results.

#### **USAID Delegation visits Tankpè PEBCo Agency**

As a prelude to the official launch of the MIMIN Vidange service delivery model, a delegation from USAID West Africa, composed of the Head of Mission and the manager of the WASH program, conducted a field visit to Benin to assess the achievements of the SSD project in Benin. As part of the September 12, 2018 visit, the delegation stopped by the offices of the PEBCo agency in Tankpè. The CEO of the agency used the opportunity to introduce the guests to PEBCo and share the experience with SSD-backed sanitation loan mechanism.

#### **Exchange Meeting between SSD and PEBCo**

On August 30, 2018, SSD and PEBCo held an important meeting during which the Director General of PEBCo agreed to the continuation of the sanitation loan mechanism and its extension to 10 new municipalities that are already covered by PEBCo agencies, with the exception of the municipality of Sakété, which will be served by the Pobè agency. At the end of this meeting, PEBCo representatives stressed that they are open to any proposal from SSD on ways to address future risk.

#### **Workshop between FINADEV-Microfinance and Partner VTOs**

For the objectives of the Vidange MIMIN model to be achieved, it is crucial that financing needs of the desludging businesses are met by the local micro-financing institutions. The Finance Scan<sup>5</sup> study identified FINADEV as one of the structures that could finance VTOs, so SSD Benin organized a workshop between representatives from FINADEV, 35 partner VTOs and members of the Union of Professional Entities for Sanitation in Benin (USPAB). The workshop provided an opportunity to educate participants on the characteristics of FINADEV's small or medium-sized enterprises (SME) loans. The next step is for SSD to assist VTOs in administrative and financial management and develop business plans that could qualify for financing.

---

<sup>5</sup> The Finance Scan was conducted in November 2015, with the support of PATH, and with the purpose of gaining an understanding of the role of finance organizations in the project settings, their operations, and their actual and potential involvement with sanitation-related products.



### 3. Stakeholder Engagement and Regional Learning

#### Strengthening an Enabling Environment

SSD Benin conducted numerous advocacy-related activities that targeted governmental, municipal and local community actors, with the aim of obtaining their support in promoting WC MIMIN as a sanitation solution for low-income households. Additionally, SSD organized several special events, such as the celebration of the National Day of Hygiene and Sanitation and a World Toilet Day ceremony, with the purpose of intensifying advocacy actions. The events included, among others, the celebration of the National Day of Hygiene and Sanitation and the organization of a World Toilet Day ceremony. As a result of these activities, several municipal administrations, most prominently Abomey Calavi and Porto Novo, made the commitment to do the following:

- Adopt municipal bylaws that oblige homeowners to construct toilets.
- Introduce a designated budget line for facilitating poor households' access to toilets. 1,000,000 FCFA have already been allocated for this purposes by Abomey Calavi, and 2,000,000 by Porto Novo.
- Close illegal dumping sites and close off areas used for open defecation.



*Official launch of WC MIMIN in Abomey-Calavi*

SSD also met with most of the mayors of the newly added project municipalities to solicit their support for introducing MIMIN in their municipalities. Meetings were held with the mayors of the municipalities of Adjarra, Allada, Akpro-Missérété, Saketé and Houéyogbé.



*Exchange workshop with representatives from the Porto-Novo municipality*

The SSD Benin team is also conducting regular meetings with local community leaders to ensure their ongoing support for the sales teams and to encourage members of their communities to purchase WC MIMIN products.

#### **Municipal Support for Constructing WC MIMIN Toilets in Poor Households**

Due to challenges experienced with unblocking funds for supporting the construction of WC MIMIN toilets in poor households, the municipality of Porto-Novo invited the SSD team to a knowledge sharing session with the aim of finding possible solutions to this issue. At the meeting, the SSD team made recommendations on the management of allocated subsidies and on the methodology of identifying households in need, as well as stressed the importance of close coordination of activities between the Technical Services Department and the Financial Department of the Municipality of Porto-Novo. It was agreed that during household visits, sales agents will use a guide to identify poor households that have already bought construction materials but cannot afford to pay for the labor. Those households will become eligible for the municipal subsidy.

#### **Advocacy Activities with the Municipality of Cotonou**

During Year 4, SSD Benin conducted 12 advocacy meetings with the municipality of Cotonou (two) and representatives from local district councils (10) aimed at engaging them not only in the household prospecting of sanitation services, but also in the effort to enforce binding legal documents in the area of health and basic sanitation.



***Left: Advocacy with the Mayor of Cotonou***

***Right: Workshop with the Cotonou Municipal staff on promoting Vidange MIMIN***

The above-mentioned advocacy activities resulted in a strong commitment by municipal authorities to enforce sanitation-related legal documents. The Cotonou Municipality committed to the following:

- To adopt municipal bylaws to help enforce the hygiene code and related laws that are currently in place, and to facilitate the support of local council leaders in monitoring and enforcing actions against homeowners with overflowing tanks/pits.
- To strengthen the partnership with ABMS through the effective involvement of its technical services at various levels in the context of promoting emptying services and raising public awareness for behavior change.
- To include a dedicated budget line in its initial 2019 budget, in support of implementing communication activities for behavior change (community mobilization, mobile team animations, home visits, mass media, posters, flyers, etc.).
- To instruct all local council officials to issue summons to households with overflowing tanks to immediately empty them.

Additionally, SSD Benin successfully engaged the Littoral Departmental government authority<sup>6</sup> in beginning to develop sanitation-related legislation.

### **Report to the Cotonou Council of District 8 on the Progress of SSD Activities**

This activity was initiated with the intent to update the district council on the progress made with regard to the process of identifying households with overflowing pits/tanks, and also solicit their support ahead of beginning the next phase of the project. SSD also used this opportunity to familiarize the council members with the activities of CSCs deployed in their neighborhoods to promote the Vidange MIMIN service. Following the briefing, the Council of District 8 instructed the municipal police to address a summons to homeowners with overflowing pits, giving them an ultimatum of two months to resolve the issue.

## **SSD - CÔTE D'IVOIRE**

Year 4 of the SSD project in Côte d'Ivoire was marked by the following two activities: 1) the intensification of activities in the field and 2) the extension of the project in eight major municipalities outside of the Abidjan region.

Over the past 12 months, SSD in Côte d'Ivoire achieved the following:

- Strengthened the supply chain by supporting micro-entrepreneurs to become the main market focal points for sanitation products.
- Enhancing demand creation by recruiting and training additional sales agents and conducting an aggressive communication campaign (door-to-door prospecting, radio shows, spot broadcasts, etc.) to create awareness among consumers and connect them to concrete ring manufacturers to purchase sanitation products.
- Achieved increased access to basic sanitation by promoting and giving sanitation loans in partnership with MFI IGITRUST, both for household investment in sanitation and for micro-entrepreneurs.
- Strengthened the enabling environment by engaging the local government to support sanitation scale up in their municipality.
- As a result of SSD's prospecting and marketing campaign, 4,291,000 liters of fecal sludge were removed from septic tanks and 12,156 people gained access to safely managed fecal sludge.

## **1. Service Delivery Models**

### **1.1. Sanitation Service Delivery Model**

To facilitate sales and provide good visibility for the sanitation products and services promoted by SSD Côte d'Ivoire, the team developed and launched the "SaniPlus" umbrella brand under which sanitation products and services are marketed. The "SaniPlus" brand currently includes four sanitation products and one service (covered later in the report):

- Toilette Plus (toilets)
- Puisard Plus (soak pits)
- Double Puits Plus (double pit latrines)
- Fosse Plus (septic tanks)
- Vidange Plus (emptying service)

---

<sup>6</sup> Littoral is one of the 12 departments (regions) of Benin and is also the smallest one. Its capital is Cotonou, Benin's largest city.



### 1.1.1. Product Standardization

The accepted standard specifications of the two main SaniPlus products are as follows:

#### Double-pit Offset Pour Flush Latrines (Double Puits Plus)

Based on the successful Benin model, SSD has introduced the same product in Côte d'Ivoire. The product is built using one or two concrete rings, depending on the size of the compound, and one cover for each pit, a concrete slab, an inserted SaTo pan, and the installation of the required PVC pipe connection and inspection box. The dimensions of the concrete rings used are 130 cm in diameter and 30 cm in height for a pit depth of 60 cm each.

SSD Côte d'Ivoire acquired 4,200 units of the SaTo pan that will be sold and installed by SaniPlus micro-entrepreneurs. The SaTo pans requires an average of only half a liter of water for an adequate pour flush. The weighted flap of the SaTo pan closes after each "flush," ensuring that users are not plagued by odors, flies and other insects.

The double-pit offset pour-flush latrine, with pits partially lined with concrete rings, reduces the risk of the toilet structure collapsing and potentially causing users to fall into the pit, especially small children. The two pits are separated by a Y-junction piping and used alternatively.

When the first pit is full (in approximately one to two years, depending on the number of users), the toilet is directed to the second pit via the connection box. The first pit decontaminates itself in situ within six to 12 months, after which it can be manually emptied safely.

The system is appropriate for areas with a low water table, a minimum of five meters deep, and must be installed at least 15 meters away from a water source to avoid contamination of drinking water<sup>7</sup>.

At the end of FY18, SSD began offering double-pit offset pour-flush latrines outside of Abidjan in eight newly targeted "peri-urban" municipalities. The product is offered to clients in two

<sup>7</sup> "The Compendium of Sanitation Systems and Technologies," 2nd Revised edition, by Elizabeth Tilley, Lukas Ulrich, Christoph Lüthi, Philippe Reymond and Christian Zurbrugg.

versions: 1) one-user interface and 2) two-user interface. Sales in Côte d'Ivoire are mainly for the two-user interface as clients see a greater value for a relatively low incremental cost.

The base cost of the double-pit offset pour-flush latrine is 154,500 FCFA (\$266 USD) for a one-user interface and 195,000 FCFA (\$336 USD) for a two-user interface. The cost will vary by region depending on local input materials and workforce costs.

Consumers have many options for the materials and construction of the superstructure based on budget and personal preferences. In Côte d'Ivoire, clients most often opt to buy the substructure without the superstructure to reduce immediate cash outlay and plan to construct it themselves, using local builders, at a later date when additional financial resources become available. The cost of the superstructure varies greatly and depends on the material used and who builds it, ranging from woven straw walls with no roof to using floor-to-ceiling bricks with a corrugated tin roof.

Consumers are typically challenged to purchase the substructure and the superstructure at the same time. They can opt to initially build a low-cost superstructure (simple straw walls with no roof) and upgrade it later as their budget permits (brick walls with a tin roof). SaniPlus will provide a wide range of information to clients about design, material and cost options for the superstructures.

#### **SaniPlus Soak Pit Specifications**

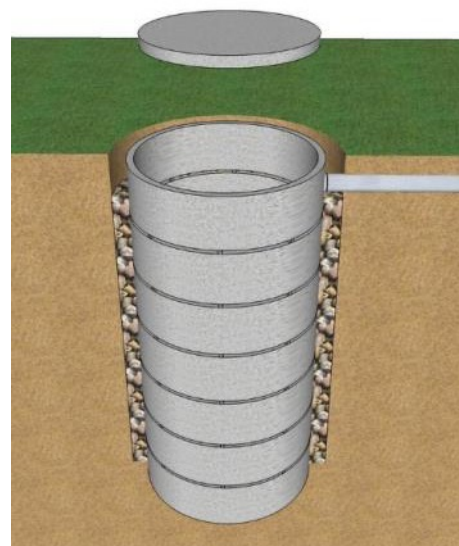
For less than 30 users, SSD recommends the purchase of one soak pit directly connected to the septic tank. For compounds with more than 30 users, SSD offers the installation of one soak pit connected to the septic tank, and another connected directly to showers, separating black toilet water from gray shower water, thus greatly reducing both the need for frequent emptying of septic tanks and the frequent flow of gray shower water into compounds, streets and gutters.

The components of the soak pit products are as follows:

- 4 concrete rings for compounds with less than 30 users
- 7 concrete rings for compounds with more than 30 users
- Depth of 120 cm (4-ring model) and 220 cm (7-ring model)
- Diameter of 130 cm
- 1 steel bar reinforced concrete lid

The value propositions of the soak pit are as follows:

- Does not require emptying or cleaning when properly installed.
- Does not pollute the water table, protects the soil and prevents the sand from entering the pit hole.
- Reduces septic tank desludging frequency.
- Creates savings for landlords and tenants.





SaniPlus will continue promoting this product mainly in Abidjan and offer it in other municipalities as the main components and skills required to install the soak pits are the same as the double pit latrines also promoted in these areas. Micro-entrepreneurs in the SaniPlus network are trained or being trained to install both products. The base price of the soak pit with four concrete rings is established at 110,000 FCFA (\$190 USD), and the soak pit with seven concrete rings is established at 138,500 FCFA (\$239 USD).

### 1.1.2. Demand Creation Activities

#### Recruiting and Training Sales Agents

To facilitate the sales of SaniPlus sanitation products in Year 4, especially with regard to the newly added project areas, the team recruited and trained 147 sales agents in addition to the 34 who were recruited last year.

The agents were trained in effective sales techniques based on the RACE method. There has been some attrition of sales agents due to people quitting and also to SSD terminating their employment due to poor performance. There are currently 95 agents that are actively involved in promotional activities.

**Table 6: Intervention areas**

	Intervention areas											Total
	Yopougon	Abobo	Attécoubé	Yamoussoukro	Bouake	Daloa	Divo	Bouafé	Gagnoa	Duekoué	Man	
Number of agents trained	59	24	24	2	4	4	10	11	13	15	15	181
Number of active agents by September 30, 2018	12	18	9	2	4	4	4	7	11	11	13	95

#### Promotional Activities and Customer Feedback

The intensification of sales promotion and community mobilization activities in Abidjan directly influenced an increase in the number of completed sales: 198 products were sold and installed during Year 4, compared to only 18 during the previous fiscal year. The successful outputs were made possible because of the following actions:

- Household sales conversations were conducted with 8,418 homeowners.
- 980 order forms were completed.
- 2,851 customers received context-specific proposals and quotations based on the sanitation conditions at their property.
- 35 public awareness events were organized by the team (7 in Abidjan and 28 in other targeted areas).

Despite high interest in SaniPlus products, as shown through the signing of an “intention to buy” form, sales continue to be well below the target. Feedback from customers, entrepreneurs and sales agents that helps explain the low sales conversion rate is included below:

- High price of soak pits and septic tanks.
- Lack of cash on hand.
- Lack of space to install new products.
- Purchasing sanitation products is not a priority for the landlord.
- Lack of trust between sales agents and landlords.
- In some cases, households already empty their tanks into ravines, so they lack a sense of urgency to purchase.
- Landlords often do not show up for pre-arranged sales appointments.

SSD has already begun to address some of these challenges with sales conversion through such actions as working with local police to enforce sanitation laws; using mid-media communication to grow recognition of the SaniPlus brand, and therefore give more legitimacy to sales agents; and offering a four-ring soak pit at a lower price for smaller compounds.



*Left: Quality inspection of construction work*



*Right: Household prospecting of SaniPlus products*

In terms of customer satisfaction, four out of five of the randomly selected households said they were satisfied by the products installed, particularly the soak pits that prevent the septic tanks from overflowing, thus reducing the frequency of mechanical emptying services. This also allows households to save money that would otherwise be spent covering the desludging service.

In Abidjan, 98% of the “intention to buy” forms signed by homeowners were for soak pits, and 69% of the products sold were soak pits. A preference for soak pits was expected, as the market landscaping had shown that people were not interested in purchasing additional toilets due to an acute problem of septic tanks overflowing. However, some landlords will purchase these toilets once the overflow problem is fixed.

### **Radio Stations**

During the year, SSD Côte d’Ivoire also carried out marketing campaigns through local radio stations. The campaign involved promoting SaniPlus products and services through the broadcasting of commercials, as well as awareness-raising programs aiming to encourage behavioral change and the adoption of healthy sanitation practices.

Since the 2<sup>nd</sup> quarter of this year, the four project partner radio stations broadcast 450 radio commercials in the three target municipalities in the Abidjan region. Additionally, the stations broadcast 17 public awareness programs and organized five discussion panels on sanitation issues.



*Awareness-raising program on a local partner radio station*

In the new project municipalities located outside of Abidjan, SSD organized 24 community public awareness events and conducted sales promotion in the presence of community leaders and neighborhood associations.

### **Involving Partner Micro-entrepreneurs in Support of Prospecting Activities**

To ensure the sustainability of the SaniPlus business model, the project engaged four micro-enterprises to support sales agents in the marketing of products and services. The selected businesses were trained in the RACE sales method. With these skills, entrepreneurs are now able to do their own prospecting and demand creation to help generate additional demand during the project period and continue finding new customers after the project ends. All four entrepreneurs have since identified new customers for toilets, soak pits and septic tanks.

### **1.1.3. Supply Chain Implementation**

#### **Recruiting, Training and Retraining Partner Micro-entrepreneurs**

To ensure the installed products meet established quality standard, SSD organized a training for micro-entrepreneurs from Abidjan and the eight newly added project areas. During Year 4, SSD Côte d'Ivoire trained a total of 289 micro-entrepreneurs (builders and concrete ring manufacturers) and 27 municipal officials (including interns).

The training consisted of an introduction to SSD-supported sanitation products, and the theoretical and practical instruction on concrete ring manufacturing.

#### **Enterprise Starter Kits**

To help partner micro-entrepreneurs launch sanitation sales, SSD Côte d'Ivoire gave them starter kits that included a mold to make concrete rings and enough cement to build a seven-ring soak pit. The value of each starter kits is around \$130 USD. With this support, an entrepreneur can produce a cement ring and install two to three soak pits per week. Partner micro-entrepreneurs outside of Abidjan will likely use their starter kits to install their first double pit latrines, due to a strong preference for this product in new program areas.



*Starter kits and training partner micro-entrepreneurs*

### **Diagnostic Visits by Micro-entrepreneurs**

In addition to the above-mentioned training sessions, the SSD technical team also accompanied the partner micro-entrepreneurs in conducting weekly diagnostic visits to determine the technical feasibility for installing sanitation products in the surveyed households. These diagnostic visits have a dual purpose:

- Assess the technical feasibility of proposed work to be conducted in a particular household.
- Provide a price estimate for the proposed solution to allow the sales agent to continue with the sales process.

During the last quarter of Year 4, a total of 315 diagnostic visits were conducted, which resulted in the signing of 239 order forms by clients—75% of which were fully realized.

The active involvement of partner micro-entrepreneurs in diagnostic visits is part of SSD's sustainability strategy. Currently, there are at least three entrepreneurs in each project municipality accompanying the sales agents on household diagnostic visits to determine product specifications and provide a price quote for the work.

Following each diagnostic visit, micro-entrepreneurs prepare an estimate for necessary construction work, and submit the estimate to the SSD technical team for verification and validation. This procedure was put in place because in the past, micro-entrepreneurs often overestimated the quantities of the materials needed, which inflated the unit cost. However, as estimated costs begin to better reflect the reality on the ground, this review will no longer be needed.

### **1.2. Fecal Sludge Management Model**

In its current form, the fecal sludge management model is based on a Call Center that serves as the interface between households in need of desludging services and the VTOs operating

in the 10 communes in Abidjan. The Call Center also gathers information from households to better inform the VTOs about the customer; conducts follow-up calls to determine VTOs' adherence to pricing, timeliness and quality of service; and gauges customer satisfaction.



*Official launch of the Vidange Plus Call Center*

#### **Official Launch of the Call Center in Yopougon**

The Fecal Sludge Management Call Center operations were started in the first quarter of Year 4 with the official launch ceremony held in Yopougon, in the presence of the Municipal Authorities, the National Federation of desludgers and project partners involved in the Vidange Plus activity. As part of the ceremony, a safety equipment kit was given to each of the 12 partner VTOs that make up the call center fleet in Yopougon. During the year, an additional 11 equipment kits were donated to operators in the municipalities of Abobo and Attécoubé to improve occupational safety.

#### **Promotional Activities**

Following the official launch of the Call Center, SSD Côte d'Ivoire worked on implementing the following three activities:

- 1) Promoting the Call Center to household owners in project areas.
- 2) Organizing knowledge exchange workshops with desludgers to share lessons.
- 3) Conducting capacity building sessions with desludgers.

A total of 15 promotional events were organized in the municipalities of Yopougon, Abobo, Attécoubé, Port Bouët, Koumassi, Marcory and Bingerville, which aimed to popularize the Vidange Plus Call Center. During these activities, SSD distributed around 10,000 flyers and 500 branded T-shirts. Currently, the Vidange Plus service coverage extends to all municipalities in the Abidjan region. The project's experience has shown that these kinds of promotional and awareness-raising events have a positive effect on the population's behavior, and can lead to an increased interest in the Call Center.

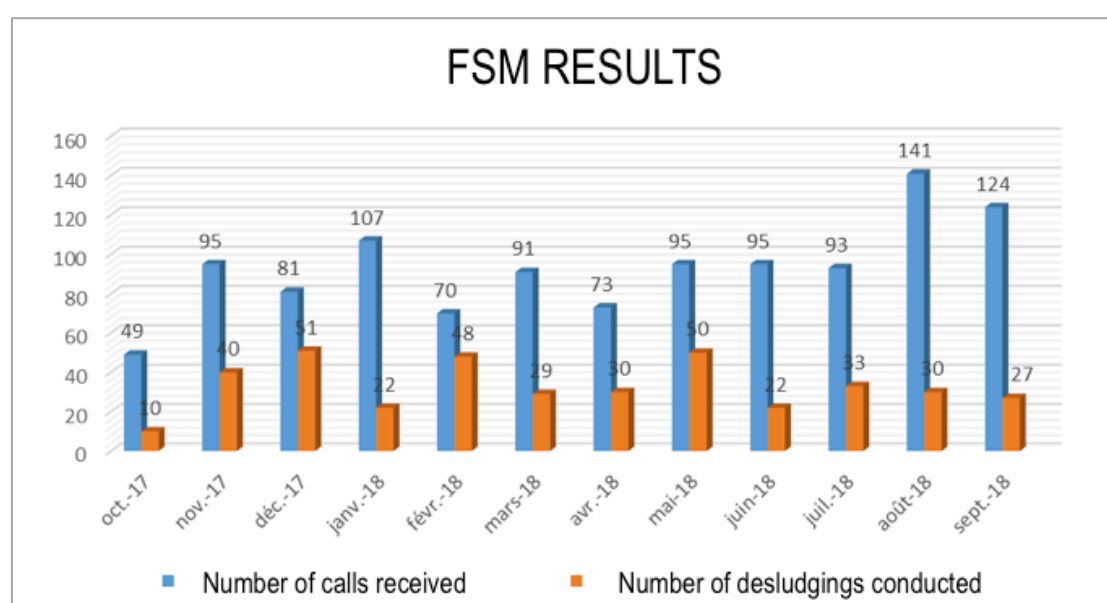
#### **Analysis of Results Achieved**

Project results show that the number of emptying services increased significantly from October to December 2017, but decreased from January to April 2018. While calls to the Call Center increased significantly in August and September, the number of services sold was still low, resulting in a much lower than expected sales conversion rate. Several factors account for the reduction in sales, including several trucks being out of service due to maintenance



issues; waning interest from the Federation of VTOs as fees for call center referrals kicked in; clients directly contacting VTOs; and a lack of availability of water tanker trucks that can fully de-sludge, which is the service requested by nearly half of callers. SSD is actively working with the Federation of VTOs to re-negotiate participation terms in the Call Center to increase buy-in and active participation.

Overall, the Call Center has facilitated a total of 613 emptying services, including 278 simple desludgings (45%) and 335 full desludgings<sup>8</sup> (55%), which led to 4,291,000 liters of fecal sludge being removed from septic tanks and 12,156 people having access to desludging services. Customer feedback showed that, on average, 81% of the clients were satisfied with the services offered by VTO providers.



### Transferring Call Center Management to a Private-sector Partner

During the third quarter of this year, SSD fully transferred the management of the Call Center to a private-sector entity (Lunatys). Nevertheless, SSD will continue to monitor and support Lunatys until the end of the project cycle, by sharing lessons learned and providing guidance in resolving potential difficulties related to operations management.

Lunatys, in agreement with SSD and the National Federation of Desludgers in Côte d'Ivoire, began charging a commission of 10% on each emptying service conducted by the desludgers. The payment of the commission began on June 1, 2018 and is being processed through a mobile money platform. Thus far, Lunatys has collected 416,400 FCFA from referral commissions on 170 emptying services.

### Developing the Truck Fleet and Organizing Knowledge-sharing Workshops

The project team continues to attract new service providers to the fleet to address the growing demand for desludging services. Currently, the fleet of desludging trucks consists of 21 simple vacuum trucks and five hydrocureurs (water-pressured trucks). However, this is not enough to cover market demand, especially due to the insufficient number of available water-pressured trucks.

<sup>8</sup> Simple desludging involves only the removal of the liquid (blackwater) from the septic tank; whereas, a full desludging includes the removal of both the blackwater and the fecal sludge accumulated at the bottom of the tank and is performed by a "hydrocureur", that is, a water-pressured truck.

In the meantime, the Call Center team<sup>9</sup> intensified training and knowledge-sharing workshops with the desludgers, which aimed to find solutions to problems encountered in the field. Some of these problems include:

- Sometimes customers do not provide full information on their geographical location and accessibility, and only after the desludger arrives to the spot do they realize that the house is inaccessible.
- Some customers try to renegotiate the price after the completion of the service in order to pay less than the price quoted by the Call Center.
- Often customers are not reachable by phone once the desludger arrives on the spot to complete the emptying.

### **Vaccination of VTO Operators**

To ensure occupational safety of VTOs and to facilitate their approval process to join the fleet, the Call Center team organized vaccinations for the VTO operators against diseases related to their profession, and also gave them protective working gear. Vaccinations were given for typhoid fever, tetanus and meningitis. SSD also trained 30 desludging operators in 2017, including 20 that have been certified by the National Office of Sanitation and Drainage (ONAD). SSD is currently assisting with having the other 20 companies certified, which includes joint training with ONAD. In the interim, all 40 companies are able to operate.



***Vaccination of VTO operators***

### **Challenges and Proposed Incentives**

The biggest ongoing challenge for the success of the call center is maintaining the active and positive engagement of the Federation of Desludgers. That is why, in Year 5, the Call Center team is planning to implement a weekly visit schedule of VTO garages aimed at identifying potential difficulties and issues, and help resolve them in time, thus, creating a climate of trust and partnership between the Call Center and the desludgers.

The team is also considering introducing incentives to further motivate the performance of desludgers, to help maintain permanent contact with members of the Federation, and to establish lasting connections with households (through awareness campaigns, promotions, and radio and TV communication campaigns).

---

<sup>9</sup> The Call Center team consists of three customer service representatives, a private-sector supervisor and one SSD adviser.

With regard to the Federation, the incentives include offering communication tools so desludgers can communicate freely with each other, and granting loans for the mechanical repairs of their trucks. As for the incentives for households, the team is planning to introduce promotional reduced prices for desludging services.

## 2. Financing Mechanisms

As part of the sanitation loan implementation process, SSD Côte d'Ivoire signed a contract and invested capital with the IGITRUST MFI, which will allow 40 homeowners and 10 micro-entrepreneurs to obtain funds for the construction of sanitation facilities, and potentially increase production capacity for entrepreneurs.



*Left: Delivery of the sanitation loan to a homeowner  
Right: Signing of the contract between SSD and IGITRUST MFI*

During Year 4, 11 homeowners and one micro-entrepreneur received sanitation loans through the SSD-supported financial mechanism.

To date, the loan repayment rate is 100%, and the model has been shown to be favorable for both micro-entrepreneurs and IGITRUST. During the four months of activity, IGITRUST granted 1,928,500 FCFA worth of loans to homeowners and micro-entrepreneurs. The total reimbursement amount was set at 2,256,840 FCFA, including a profit of 328,340 FCFA in interest, which is approximately 17% of the amount issued. In Year 5, SSD will work with IGITRUST to encourage them to raise additional private capital to invest in sanitation.

## 3. Stakeholder Engagement and Regional Learning

### Working with Municipal Authorities

SSD Côte d'Ivoire signed an MoU with the municipalities of Attécoubé, Yamoussoukro and Abobo committing to a joint effort to promote household behavior change by creating demand for sanitation products.



***Signing of an MoU with the municipality of Attécoubé***

The MoU also committed the municipal authorities to strengthen sanitation-related laws and regulations in their municipalities. The MoU was endorsed by community leaders, the National Federation of Desludgers, the Ministry of Health, private-sector partners and women's associations.

SSD Côte d'Ivoire has also actively supported the local municipal authorities from the target project areas in the drafting and implementation of sanitation-related bylaws, with the ultimate goal of influencing behavior change. These bylaws prohibit the following:

- Construction of dwelling units without basic sanitation facilities in areas not covered by the centralized sewerage network.
- Open air defecation.
- Construction of basic sanitation facilities (septic tanks, soak pits and pit latrines) on public property.
- Disposal of wastewater from septic tanks and soak pits onto concessions and public roads.
- Disposal of shower, kitchen and laundry waters onto public roads or in the lagoon.
- Disposal of fecal sludge on locations other than designated dumping sites.

The municipal authorities have decided that any offender of the provisions in the bylaws will be liable to pay a fine ranging from 5,000 to 50,000 FCFA and will receive a formal notice to remedy the transgression within 72 hours, at the risk of having their rent seized to cover the related expenses.

The following two major actions were carried out as part of implementing the above-mentioned provisions:

- 1) Bringing together police officers and sanitation inspectors from various municipalities to fully familiarize them with the contents of the bylaws, and to explain their roles and responsibilities in implementing the provisions.
- 2) Conducting four public awareness events on the importance and content of the bylaws. The authorities urged local community leaders and community members to adopt healthy sanitation practices by acquiring basic sanitation facilities, and in doing so, avoid fines and penalties. They also referred them to micro-entrepreneurs for scheduling the construction of SaniPlus products.



***Workshop with police officers and sanitation inspectors***

In Year 5, SSD Côte d'Ivoire will continue supporting the implementation of the above-mentioned bylaws, and thus, contribute to generating an enabling environment for creating demand for sanitation products and services. SSD will also encourage municipal authorities of new target areas to adopt similar laws.



***Engaging local community leaders***

## **SSD - GHANA**

The SSD Ghana project was reviewed and audited between February and August 2018. The project review process severely restricted activities during this period.

SSD Ghana focused on continuing activities rolled over from Year 3 with contractual commitments – namely, the *Customer segmentation study to improve sanitation financing* and *Investigating Clean Team waste to improve Fecal Sludge Management*. Additionally, the team pursued ongoing low-cost activities, including government engagement and some artisan toilet promotions, resulting in the sales of 166 improved toilets benefitting 1,164 people.

Following the review, SSD Ghana refocused project activities only in Kumasi and is pursuing activities that have the potential to deliver the greatest impact by accelerating the sale of more affordable sanitation options.

SSD Ghana will continue marketing Round Concrete Tanks (RCTs), double offset leach pit latrines and the SaTo pan interface. The scale-up plan includes working in Kumasi's peri-urban communities, where cheaper toilet models like the SSD Benin Team's WC MIMIN design are applicable.



## 1. Service Delivery Models

### 1.1. Sanitation Service Delivery Model (Compound Sanitation)

In Year 4, trained artisans in both Kumasi and Ga West continued to deliver services via existing channels. Environmental health officers and toilet sales agents continued with toilet promotions. It has been especially difficult for artisans in Ga West to sell toilets due to a parallel government project offering a 70% subsidy to the same customers. As a result, artisans are building toilets outside of the initial target project area. The combined number of toilets attributable to the SSD project, built in Accra, is 166, creating access for 1,164 users.

To date, SSD Ghana has constructed 428 improved toilets that gave access to basic or limited sanitation to 912 and 2,477 residents in Kumasi and Ga West, respectively.

Although the numbers are not as high as expected, all toilets built in Accra were built without any further financial support from the project and minimal technical support, as they were built during the project review period. This is a good indication that the businesses are independent and sustainable. Artisans in Kumasi sold toilets despite the lack of a government subsidy. Three of these artisans reached informal payment agreements with customers offering them the opportunity to pay in installments toward a toilet. Typically, there is a 30% down payment and the remainder is spread across a period of three to six months.

Sales and marketing staff in Kumasi strategically target customers with existing superstructures (old toilet rooms), significantly reducing installation costs. This presents some good lessons for the project. SSD will focus more attention in areas where the subsidy program is absent and work to make toilets affordable by offering customers the opportunity to pay in installments via MFI loans or informal arrangements with artisans.

#### 1.1.1. Product Standardization

##### Round Concrete Tank

The round concrete tank usually consists of two chambers, each equipped with a manhole cover, and separated by a dividing wall with openings located about midway between the floor and roof of the tank. One end is connected to an inlet wastewater pipe and the other to a septic field drain. RCTs are constructed by artisans using pre-cast rings, or rings that are cast in-situ. For either option, the ring usually has a width of 1.6m and height of 1.2m, though sometimes bigger sizes are used. The volume of the RCTs constructed ranges from 1.87m<sup>3</sup> to 3.31 m<sup>3</sup>. The number of rings to use and the depth of the excavation depend on the number of users in the house. Therefore, the team has options for two rings, three rings and four rings with single or twin tanks. The RCT is suitable for densely populated areas, where multiple households within a compound are provided with toilets, all of which share the same septic tank. As many as 50 people can share a single tank.

The SSD product scan report<sup>10</sup> indicates that consumers have a strong preference for toilets that are tiled and are willing to pay for this feature. In Kumasi, RCTs are often installed in households that already have existing superstructures that are rehabilitated with tiling and hand washing facilities.

The project has constructed over 200 RCTs in Kumasi over a two-year period. None of the tanks has yet needed desludging. SSD Ghana estimated that desludging of the RCTs will need

---

<sup>10</sup> PATH, 2015 Product Scan Findings Report, Ghana.

to be done every two to three years, depending on the number of users. The average cost of desludging is \$75 USD per trip. The price depends on the distance from the toilet to the final disposal site. SSD will continue to work with the VTOs the team has trained to ensure safe removal and disposal services, transport through the city, and an improved customer experience. SSD will continue to work with VTO associations and the Kumasi Municipal Authority (KMA) to improve the efficiency of emptying services.

The main goal with RCT promotion is to optimize the design of the rings, which will result in cost reduction. SSD Ghana is learning how PSI's SSD team in Benin has optimized the design and cost of rings used in the construction of the double offset leach pit latrine. SSD Ghana's objective is to adapt lessons from the Benin model to make the Ghanaian offering more affordable.

### **Double Offset Leach Pit**

A primary challenge for SSD Ghana has been the inability of the project to develop and promote affordable toilet options to scale. This difficulty has to do with reconciling the affordable with what is acceptable to both users and local authorities. Experience from the Supporting Sustainable Sanitation Improvements (3SI) project in India indicates strong acceptance of the double offset pit latrines. 3SI began to produce results at scale and presents a good model for adaption and replication in similar contexts. Last year, SSD Benin successfully adapted this model and has rapidly improved toilet sales. SSD Ghana is currently enlisting the help of the SSD Benin team to assist in developing this model for Kumasi's peri-urban areas, with a lower population density, where this technology is acceptable. This technology is already known and used in Ghana. The Latrine Technology Manual developed by Nyarko et al. in 2016 gives the product specifications, approximate material estimates and engineering drawings for the Twin Off-Set Leach-Pits in Ghana. The guidelines presented by this manual, enhanced with practical learning from Benin and Côte d'Ivoire, will be used in artisan training.

### **1.1.2. Supply chain implementation**

#### **Summary of Work with the Municipal Governments of Kumasi and Ga West**

The Ga West municipal assembly, with support from SSD, has signed an MoU with Private and Social Toilets (PRISTO) – a public-private partnership intended to promote improved health by increasing the number of Biofil Toilet Systems (at around \$700 USD per installation) in households and schools in low-income, urban communities in the Greater Accra region. The project seeks to increase the production capacity of biological filters and composters. This will be achieved by facilitating the marketing, production, sale and installation of Biofil Toilet Systems in the municipality. For every 100 toilets built, the municipality gets 25 free social toilets to be installed in schools. Ga Central and Ashaiman Municipalities are already involved.

Toilet construction is yet to commence under the agreement.

## **1.2. Fecal Sludge Management Model**

### **1.2.1. Clean Team Kumasi**

#### **Investigating Treatment Options for KMA and Clean Team Waste**

This activity was completed in December 2017. The work was part of the assessment of a business model for the re-use of fecal waste to improve the financial viability of a new sanitation business model. As per the objectives of the not-yet-published study, many technologies were identified with the potential to use waste for the sustainable production of

marketable resources to improve lives in the community. The consultant engaged with four technology providers (innovators) and collected data relevant to financial modeling.

There was extensive engagement with KMA and the J. Stanley-Owusu Group (JSO) during on-site visits and discussions to better understand the current situation of waste management and the interests of the parties involved. Following these interactions and data gathered, the consultant developed an economic model for each innovator and a generic one for future use. Analysis was carried out on the type of potential contractual options/agreements that could be considered between KMA / JSO / innovators. The consultant produced a final report titled *Making the Business Case for Investment in Waste-to Resource, Kumasi, Ghana*. WSUP is preparing a brief of the report to share at a later date.

## 2. Financing Mechanisms

WSUP continues to engage with four MFIs—HFC Bofo, Sinapi Aba, Price Capital and Pathways—to encourage them to provide access to financing for toilet construction in Ga West and Kumasi. Engagement with MFIs has enabled households to access financial support to construct 149 toilets under the project.

WSUP also remains in partnership with the Project Coordinating Unit (PCU) under the World Bank Greater Accra Metropolitan Area (GAMA) sanitation project, which offers a 70% cost subsidy for toilet construction. WSUP trained sales agents to actively promote the GAMA toilets and link households to MFIs to access funds for the remaining 30%.

### Customer Segmentation Study

SSD Ghana completed the Customer Segmentation Study, led by consultant Athena Infonomics, which explored cheaper financing approaches by engaging with stakeholders and conducting a quantitative study involving over 420 respondents across Accra and Kumasi. This study provided comprehensive evidence in support of improving sanitation loan financing outcomes in urban areas in Ghana. WSUP is preparing a practice note on the study to share at a later date.

As part of the study, Athena completed the data collection for the demand-side surveys with the identified groups of respondents as follows:

- Households with the intent to own a toilet, but who had not initiated savings at a bank.
- Households with intent, who had at least partially saved for a toilet.
- Households with toilets constructed using sanitation financing.
- Households that applied for sanitation financing, but were rejected.

Following the preliminary output, the team held a series of stakeholder validation workshops and meetings with stakeholders (financial institutions, development partners and select government invitees) to gather comments and validation from the participants on the findings.

In collaboration with Water.org and other stakeholders, SSD is supporting five MFIs under the GAMA project by helping them develop better loan products incorporating outcomes and recommendations from the study. A two-day workshop was organized in November 2017, which was attended by officials from the GAMA project, Water.org, WSUP and seven MFIs. The MFIs represented were Pan-African Savings & Loan, Opportunity International Savings and Loans, Sinapi Aba Savings and Loans, Adom Bofo Microfinance Co. Ltd, Christian Community Microfinance Limited, HFC Bofo Microfinance Services Ltd, and Vision Fund.

There was a general recognition of the important role that the private sector can play in sanitation finance and the critical role of market intelligence provided in the form of the customer segmentation study. At the end of the workshop, MFIs better appreciated the relevance of the ongoing study and expressed renewed interests in the study's outputs.

A significant outcome of this engagement process was that, after seeing SSD's study, the GAMA project invested in another study to complement it. This supplementary study (supply-side), which the World Bank is producing and has not yet finalized, is investigating the performance and bottlenecks in the MFI/SME issues affecting the performance of SMEs active in the onsite sanitation space in the GAMA project and Kumasi in meeting sanitation facility construction demand. The objective is to identify actionable solutions to improve implementation of the GAMA project and the Output-based Aid (OBA) Sanitation project, as well as broader sanitation interventions in Ghana. SSD Ghana has completed the study and secured the support of the Ministry of Sanitation and Water Resources for a stakeholder dissemination workshop to be held on October 24, 2018. Both of these studies add valuable information and outputs that will help overcome bottlenecks in the financing and implementation processes for household sanitation, including for the GAMA project and the future expansion of sanitation services in Accra and Kumasi.

Although the consultancy agreement for the segmentation study has ended, the consultant continues to collaborate with SSD to explore concrete ways of using the outcomes, for example in the way MFIs target, select and process toilet loans. The consultant is committed to working with SSD and stakeholders, such as Water.org, to produce a tool to help MFIs better appraise applicants. Together with Water.org, SSD Ghana tested a tool that systematically tracks the type of applicants who are requesting loans. Water.org is currently supporting five financial institutions with loan product development. MFIs have also been linked to the GAMA project and will start lending to clients when product development is complete.

## **MONITORING, EVALUATION AND LEARNING**

### **Monitoring**

During Year 4, SSD routinely monitored key indicators to provide accurate evidence on performance by micro-enterprises and the effectiveness of demand creation activities.

### **Mastering the Dashboard Functions of the DHIS2 M&E platform**

The monitoring and evaluation (M&E) skills and capacities of the SSD teams in Benin and Côte d'Ivoire were strengthened during a workshop on designing dashboards in District Health Information System 2 (DHIS2), organized by the Health Information System program WCA (HISP WCA) and held from October 15 to 22, 2017 in Lomé, Togo. Mastering the dashboard functions will allow SSD staff to use real-time data to inform project approaches and activities.

Six members of the SSD Côte d'Ivoire team participated in a training on monitoring, evaluation and learning concepts, organized by USAID, which took place in June 2018 in Abidjan. The training familiarized staff members with the notions of M&E, logical frameworks, Performance Monitoring Plans (PMPs) and Performance Indicator Reference Sheets (PIRS), in the context of standard USAID procedures.

## FOCUS ON GENDER AND VULNERABLE POPULATIONS

Throughout Year 4, SSD remained committed to the provisions of the Gender Strategy and approached gender as a vital component of SSD's work. When collecting feedback from households during the prototypes piloting phase, the team made sure to gather insights from both men and women.

The strong emphasis that SSD puts on the gender approach is especially noticeable in Benin. According to current statistics, one out of three members of the SSD Benin sales force is a woman, or about 36% of the total number of active CSCs. However, the percentage is lower with regard to the CSCs that work on promoting the Vidange MIMIN service (only two women out of 17 CSCs). Out of the 13 CSC supervisors, one is a woman.



*Women working with the SSD project*

As for the case of providing households access to sanitation loans in Benin, about one in four (25%) of the loans were issued to women. Out of the total number of 7,144 people that have benefited from the construction of WC MIMIN toilets, 3,732 were women (52.2%).

The gender approach adopted by the project did not focus exclusively on the female population. For example, in addition to encouraging households to erect superstructures that ensure the privacy of users, especially women, the team also took into account feedback from male customers. Doing so led to improvement in the design of the WC MIMIN user interface (toilet seat) to ensure better comfort for male users.

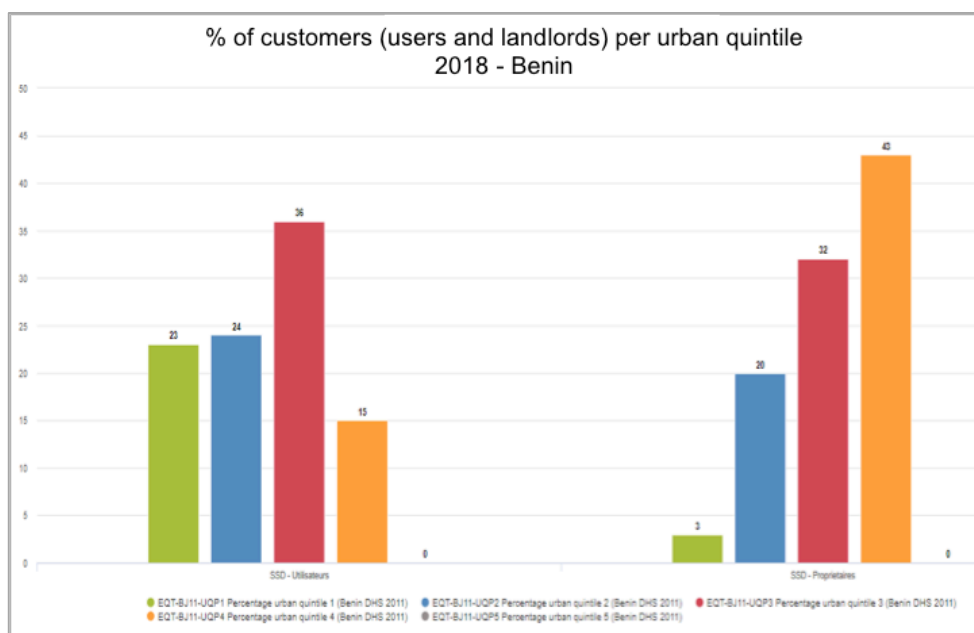
To improve outcomes for the gender approach, the SSD team in Côte d'Ivoire encouraged women entrepreneurs to apply for and undergo training sessions in constructing sanitation facilities. However, only two out of 53 trained micro-entrepreneurs were women, which could be explained by the nature of construction work. During the last quarter of the fiscal year, one of the partner women entrepreneurs received a loan from IGITRUST MFI to help strengthen her business and fully adopt the SSD model.

However, major challenges remain and SSD will continue to follow the gender approach, raise awareness on toilet superstructure design that ensures privacy and security for women, and encourage women entrepreneurs to join the SSD models. The teams will also continue to focus on the following activities:



- Work with municipal officials to identify more women entrepreneurs.
- Encourage the Federation of Desludging Entities to give opportunities to women.
- Provide women homeowners with access to sanitation loans.
- Engage more women's associations in awareness-raising and behavior change workshops.

Additionally, the project will train the sales force on gender-specific security measures for toilet design. Along with incorporating gender, SSD's product development process has always taken into consideration lower-income households, especially by minimizing the cost of the WC MIMIN. Project statistics (available at the project DHIS2 dashboard) show that 47% of users and owners of WC MIMIN toilets fall under the first two poverty-level quintiles.



## ENVIRONMENTAL CONSIDERATIONS AND MITIGATION

From October 23 to 27, 2017, SSD participated in the Environmental Monitoring and Mitigation Plan (EMMP) workshop, which was organized by the USAID regional office in West Africa, Ghana. The workshop had the following three objectives:

- Develop the skills of USAID staff and partners to incorporate Good Design and Environmental Management (ESDM) practices into USAID-supported projects.
- Enhance participants' knowledge of the implementation of USAID environmental procedures, such as Regulation 216, throughout the project life cycle.
- Encourage cooperation between project implementation partners, local field staff and USAID staff through networking and the exchange of lessons learned, best practices, new strategies and technical solutions.

The project's EMMP, last revised in June 2018, outlines a key Initial Environmental Examination (IEE) under which SSD conducted work in Year 4:

**IEE condition:** Protection of beneficiaries and personnel in sanitation businesses from exposure to pathogens and unsafe working/living conditions. Prevention of untreated liquid waste being released into the environment.

- **Mitigation:**
  - Establish minimum quality standards for private-sector partners.
  - Review of and support for implementation and enforcement of the applicable national environmental policies and laws.

Corresponding to this IEE condition, Ghana took the following steps to mitigate the impact of toilet installation on the environment:

- Trained partner micro-entrepreneurs on national standards for basic sanitation. During the training sessions for micro-entrepreneurs (both builders and concrete ring manufacturers), a strong focus was put on technical criteria and compliance with the following environmental standards:
  - The distance to be observed between two pits.
  - The depth to be respected during latrine installation.
  - Factors to take into consideration while installing sanitation products in areas with a high groundwater table.
- Complied with the national minimum quality standard, which includes respecting a distance of 15m from the nearest water source while installing a toilet.
- Conducted regular field visits to ensure that concrete ring manufacturers and builders adhere to good practices regarding construction work and environmental management.

## LESSONS LEARNED

- Space constraints at some of the households, as well as the non-uniformity of the underground water level in the project intervention areas, constitute a significant obstacle for the construction of WC MIMIN toilets.
- Increased involvement of government, municipalities and community leaders is critical for successful market penetration.
- It is essential for the sustainability of SSD project results to involve the municipalities' technical services from the beginning to the end of sanitation construction products, with coaching for SSD project engineers conducted during the last year.
- Regular inspections of construction work by partner micro-entrepreneurs has been shown to have a positive impact on their performance quality.
- It is essential that builders consult SSD project engineers before constructing WC MIMIN toilets in areas with high levels of depression and/or slope in order to avoid product malfunction.
- Concrete rings that are left to dry for a short amount of time at the manufacturing site tend to break easily during transport. Therefore, it is essential to respect the different quantities of concrete ring materials and necessary to mark concrete rings and slabs with their production dates. This helps track when they are strong and solid enough to be transported to customers.
- SSD should continue the process of identifying, recruiting and training builders to address the shortage of people trained in WC MIMIN construction who are available at any time.
- The continuous coaching of concrete ring manufacturers and builders trained by SSD is crucial to the success of the Sanitation Service Delivery Model, as well as for maintaining service quality.

- To ensure complete customer satisfaction, it is important that project teams monitor construction work and clients are involved in the product installation process.
- The project team must rigorously check the candidates recommended by partner municipalities prior to training in basic sanitation construction techniques, since some candidates do not fit the profile.
- The motivational mechanism that awards the most successful sales agents is essential for boosting sales.
- The open support from district councils further increases the credibility of SSD sales teams in the eyes of local homeowners.
- The supervision quality of sales agents is critical for motivating these agents and improving sales performance.
- Strategies and models used with pertinent results should be developed into Standard Operating Procedures (SOPs). Additionally, consumer sanitation financing is essential to facilitating access to basic sanitation for low-income households.
- The pilot finance mechanism for desludging services should be fine-tuned and put into operation as soon as possible to enable poor households to empty their tanks on time.
- To avoid data discrepancies, double check data and include an internal data quality assessment each quarter.
- As part of SOPs, describe the different steps needed to obtain the agreement and signature of mayors for an MoU.